

What is claimed is:

- 1 1. A connector equipped with a valve, comprising:
 - 2 a connector housing comprising:
 - 3 a through path;
 - 4 a tube connection section being formed at a first axial side;
 - 5 a pipe insertion section being formed at a second axial side;
 - 6 an internal valve disposed in said connector housing to open and close said
 - 7 through path;
 - 5 a connector equipped with a valve,
 - 6 a valve housing section disposed between said tube connection section and said
 - 7 pipe insertion section,
 - 8 an inner diameter of said valve housing section being larger than an inner diameter
 - 9 of said tube connection section;
 - 10 said internal valve comprising:
 - 11 a valve seat surface formed on an inner surface of said housing between said tube
 - 12 connection section and said valve housing section;
 - 13 a closing section having an outer perimeter section; an abutting surface formed on
 - 14 said outer perimeter section and abutting said valve seat surface;
 - 15 a main valve body housed in said valve housing section and
 - 16 allowing axial movement; and
 - 17 a compression spring biasing said main valve body toward a first
 - 18 axial side; and
 - 19 a cylindrical bushing being fitted to said pipe insertion section and filling a
 - 20 space between an inner perimeter surface of a first axial side of said pipe insertion section
 - 21 and an insertion-side end of an inserted pipe body.

1 2. The connector equipped with a valve as described in claim 1, further
2 comprising a valve cap receiving a second axial-side end of said compression spring and
3 being integrally formed with a first axial-side end of said cylindrical bushing.

1 3. The connector equipped with a valve as described in claim 1, wherein said
2 main valve unit comprises:

3 a housing-side guide extending from said closing section to a second axial side and
4 sliding over an inner perimeter surface of said valve housing section;

5 a connection-side guide extending toward a first axial side from said closing section
6 and sliding over an inner perimeter surface of said tube connection section.

1 4. The connector equipped with a valve as described in claim 3, further
2 comprising:

3 a support groove formed on a second axial side of said housing-side guide
4 of said main valve body wherein a first axial-side end of said compression spring is held
5 and supported in said support groove.

1 5. The connector equipped with a valve as described in claim 1, further
2 comprising a small through-hole communicating with said through-path at both axial sides
3 of said closing section and formed in said closing section of said main valve body.

1 6. The connector equipped with a valve as described in claim 1, wherein said
2 valve seat surface is formed with a linear cross-section shape and said abutting surface of
3 said closing section is formed as an arc projecting outward in cross section.